A hit counter tells you about the number of visits on a particular page of your web site. Usually you attach a hit counter with your index.jsp page assuming people first land on your home page.

To implement a hit counter you can make use of Application Implicit object and associated methods getAttribute() and setAttribute().

This object is a representation of the JSP page through its entire lifecycle. This object is created when the JSP page is initialized and will be removed when the JSP page is removed by the jspDestroy() method.

Following is the syntax to set a variable at application level:

```
application.setAttribute(String Key, Object Value);
```

You can use above method to set a hit counter variable and to reset the same variable. Following is the method to read the variable set by previous method:

```
application.getAttribute(String Key);
```

Every time a use access your page, you can read current value of hit counter and increase it by one and again set it for future use.

Example:

This example shows how you can use JSP to count total number of hits on a particular page. If you want to count total number of hits of your website then you would have to include same code in all the JSP pages.

```
<%@ page import="java.io.*,java.util.*" %>
<html>
<head>
<title>Applcation object in JSP</title>
<body>
<%
   Integer hitsCount =
     (Integer) application.getAttribute("hitCounter");
   if( hitsCount ==null | hitsCount == 0 ) {
       /* First visit */
      out.println("Welcome to my website!");
      hitsCount = 1;
       /* return visit */
      out.println("Welcome back to my website!");
      hitsCount += 1;
    application.setAttribute("hitCounter", hitsCount);
%>
<center>
Total number of visits: <%= hitsCount%>
</center>
</body>
</html>
```

Now let us put above code in main.jsp and call this JSP using URL http://localhost:8080/main.jsp. This would display hit counter value which would increase every time when you refresh the page. You can try to access the page using different browsers and you will find that hit counter will keep increasing with every hit and would display result

Welcome back to my website!

Total number of visits: 12

something as follows:

Hit Counter Resets:

What about if you re-start your application ie. web server, this will reset your application variable and your counter will reset to zero. To avoid this loss, you can implement your counter in professional way which is as follows:

- Define a database table with a single count, let us say hitcount. Assign a zero value to it.
- With every hit, read the table to get the value of hitcount.
- Increase the value of hitcount by one and update the table with new value.
- Display new value of hitcount as total page hit counts.
- If you want to count hits for all the pages, implement above logic for all the pages.